

PLS6MW Platform

Expanded Material Possibilities

For the maximum in material processing versatility, consider the PLS6MW Multi-Wavelength Laser Platform. Unique among laser systems, the PLS6MW can make use of three different laser wavelengths to process the broadest spectrum of materials and applications. The multi-wavelength functionality of the PLS6MW can be used to accomplish some tasks which are impossible if only one wavelength of laser source is used.

1.06 micron wavelength – Fiber Laser

When configured with a 1.06 micron pre-aligned interchangeable fiber laser, the PLS6MW can mark most metals and some plastics.

10.6 micron wavelength – CO₂ Laser

Reconfigure the PLS6MW with a standard 10.6 micron pre-aligned interchangeable CO₂ laser to open up the full breadth of organic and inorganic material processing capabilities.

9.3 micron wavelength – CO₂ Laser

Reconfigure the PLS6MW with a specialized 9.3 micron pre-aligned interchangeable CO₂ laser for excellent results on certain highly-functional plastics.



Laser Technology Benefits

- ▶ **Software Controlled** - The laser can be controlled by any Windows[®] based software with a print function.
- ▶ **Multi-Material** - Process an endless number of materials available today and in the future.
- ▶ **Multi-Process** - Cut, engrave, mark, and produce photo images in one step.
- ▶ **Non Contact** - Modify material without applying any physical force.
- ▶ **On Demand** - Produce everything you need in real time, without waiting for hard tooling.

Uniquely Universal Features

▶ **ULR Laser Sources**

Universal's patented air-cooled free-space gas slab lasers produce an excellent quality beam with even power distribution and good near- and far-field characteristics, making them ideal for laser material processing.

▶ **Rapid Reconfiguration™ of Lasers**

Laser platforms with Rapid Reconfiguration can be reconfigured with new laser sources in seconds, without tools. This allows you to configure your laser system to suit the task at hand, increasing quality and throughput.

▶ **High Power Density Focusing Optics™**

High Power Density Focusing Optics (HPDFO) allow the laser beam to be focused to a much smaller spot, making it possible to engrave smaller text and produce sharper images at tighter tolerances.

▶ **1-Touch Laser Photo™**

1-Touch Laser Photo is a proprietary software package that makes it quick and easy to reproduce photographic images on nearly any material.

▶ **Multi-wavelength technology**

The PLS6MW has been engineered to support CO₂ laser sources that produce 10.6µm and 9.3µm laser energy and fiber laser sources that produce 1.06µm laser energy.

System Specifications



SYSTEM SPECIFICATIONS		PLS6MW
▶ Work Surface Area ¹		32 x 18 in (813 x 457 mm)
▶ Maximum Part Size ²		37 x 23 x 9 in (940 x 584 x 229 mm)
▶ Dimensions		44 x 39 x 36 in (1118 x 991 x 914 mm)
▶ Rotary Capacity		Max Diameter: 8 in (203 mm) with 2.0 lens; 5.9 in (150 mm) with 4.0 lens
▶ Motorized Z Axis Lifting Capacity		40 lbs (18 kg)
▶ Available Focus Lenses		2.0 in (51 mm) 4.0 in (102 mm) *standard
▶ Laser Platform Interface Panel		Keypad and LCD display shows current file name, laser power, engraving speed, PPI and run time
▶ Operating System Compatibility		Requires a dedicated PC to operate. Compatible with Microsoft® Windows XP/Vista/7.0/8.0 – 32/64 bit
▶ PC Connection		USB 2.0
▶ Cabinet Style		Floor-Standing
▶ Optics Protection		Air Assist Optional
▶ Laser Options		1.06µm (Fiber) - 30 and 40 Watts 10.6µm - 10, 25, 30, 40, 50, 60, 75 Watts 9.3µm - 30 and 50 Watts
▶ Approximate Weight		345 lbs (156 kg)
▶ Power Requirements		110V/220V 10A/5A
▶ Exhaust Connection		Two 4 in (102 mm) ports 500 CFM @ 6 in static pressure (850 m³/hr at 1.5 kPa)

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UNIVERSAL
LASER SYSTEMS

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CDRH Class 1 safety enclosure for CO₂ laser³. Class 3R for red laser pointer.



¹ Work area varies by speeds and throughput

² Maximum part size defined as used with 1.5 lens

³ CDRH Class 1 laser safety enclosure provides for safe operation without the need for an interlocked room or protective eyewear.

WARNING: UNIVERSAL LASER SYSTEMS PRODUCTS ARE NOT DESIGNED, TESTED, INTENDED OR AUTHORIZED FOR USE IN ANY MEDICAL APPLICATIONS, SURGICAL APPLICATIONS, MEDICAL DEVICE MANUFACTURING, OR ANY SIMILAR PROCEDURE OR PROCESS REQUIRING APPROVAL, TESTING, OR CERTIFICATION BY THE UNITED STATES FOOD AND DRUG ADMINISTRATION OR OTHER SIMILAR GOVERNMENTAL ENTITIES. FOR FURTHER INFORMATION REGARDING THIS WARNING CONTACT UNIVERSAL LASER SYSTEMS OR VISIT WWW.ULSINC.COM.

Universal's laser systems are protected under one or more of U.S. Patents: 5,661,746; 5,754,575; 5,867,517; 5,881,087; 5,894,493; 5,901,167; 5,982,803; 6,181,719; 6,313,433; 6,342,687; 6,423,925; 6,424,670; 6,983,001; 7,060,934; 7,415,051; 7,469,000; 7,715,454; 7,723,638; 7,947,919; 8,101,883. Other U.S. and international patents pending. Made in the U.S.A.

The VLS Desktop system has been awarded U.S. Design Patent No. D517,474 for the unique design of its external cabinet, which also functions as a Class 1 laser safety enclosure.

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